

A NEW SPECIES OF *Dyschiriognatha* (ARANEAE: TETRAGNATHIDAE) FROM INDIA

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ABSTRACT

The poorly known Genus *Dyschiriognatha* Simon, 1893 from Tetragnathidae is reported first time in India. The new species is described as *Dyschiriognatha ganeshi* sp.nov. from Lonar Crater Sanctuary, Distt. Buldhana, India. The taxonomic description and diagnoses of the new species are given.

Key words: Spider, Taxonomy, First record, Lonar Crater Sanctuary,

INTRODUCTION

The family Tetragnathidae is currently represented by 966 species belonging to 47 genera in the world (Platnick, 2014). Until now 40 Tetragnathidae spider species from 8 genera have been recorded from India (Keswani *et al.*, 2012). Following genera of this family have been recorded from India, *Guizygiella* Zhu, Kim & Song, 1997; *Leucauge* White, 1841; *Meta* C. L. Koch, 1836 *Opadometa* Archer, 1951; *Orsinome* Thorell, 1890; *Pachygnatha* Sundevall, 1823 ; *Tetragnatha* Latreille, 1804; *Tylorida* Simon, 1894. *Dyschiriognatha* is a very small genus, comprising less than ten species scattered in the Palaearctic, Ethiopian, Neotropical and Oriental regions. *Dyschiriognatha bedoti* Simon is the only species reported till date from the Oriental region (Simon 1893) (Barrion *et al.*, 1995). In the genus *Dyschiriognatha*, *D. argyrostilba* (O. P.-Cambridge, 1876), *D. bedoti* Simon, 1893, *D. dentata* Zhu & Wen, 1978, *D. lobata* Vellard, 1926, *D. montana* Simon, 1897, *D. oceanic* Berland, 1929, *D. tangi* Zhu, Song & Zhang, 2003, *D. upoluensis* Marples, 1955, species have been reported from different parts of the region (Platnick , 2014). The *Dyschiriognatha* Simon, 1893 is mentioned by Sebastian & Peter, 2009 in their book Spiders of India. Their information is informal, so the genus *Dyschiriognatha* Simon, 1893 is a new record to Indian areno-fauna.

MATERIALS AND METHODS

The present study is based on material collected in 2012 and 2013. A total 2 specimens of *Dyschiriognatha ganeshi* sp. nov. were collected from Lonar Crater Sanctuary, Maharashtra (19° 58' 26.363 N, 76° 30' 2.303 E) India . The specimens

were collected through standard quadrat method 20 X 20 meter on Grass layer near to water by active search method. The spider specimens were identified as the genus by using book of the '*African spiders – An Identification Manual*' by (Dippenaar – Schoeman and Jocque, 1997). The basic identification of specimen was executed with a Carl-Zeiss Stemi 2000-c Stereo–Zoom microscope (Germany). All the specimens were preserved in 75% ethanol and currently deposited in the Arachnology Research Centre of J.D.P.S.M, Daryapur. Leg measurements are given in the following sequence: total length (coxa, trochanter, femur, patella, tibia, metatarsus, tarsus). Palp measurements are given as (trochanter, femur, patella, tibia, tarsus). All measurements are in millimeters and abbreviations used are as follows: AME-anterior median eyes; ALE-anterior lateral eyes; PME-posterior lateral eyes; PLE-posterior lateral eyes; MOA-median ocular area.

RESULTS AND DISCUSSION

Taxonomy

Genus *Dyschiriognatha* Simon, 1893

Dyschiriognatha Simon, 1893: 324. Type species: *Dyschiriognatha bedoti* Simon, 1983.

Dyschiriognatha ganeshi sp.nov (Fig. 1-17)

Material examined: Male holotype from Lonar Crater Sanctuary, Maharashtra, (19° 58' 363" N, 76° 30' 303" E) India; May 2013, collected by S.V. Manthen (ARC JDPSM). Paratype. Male, same data as holotype.

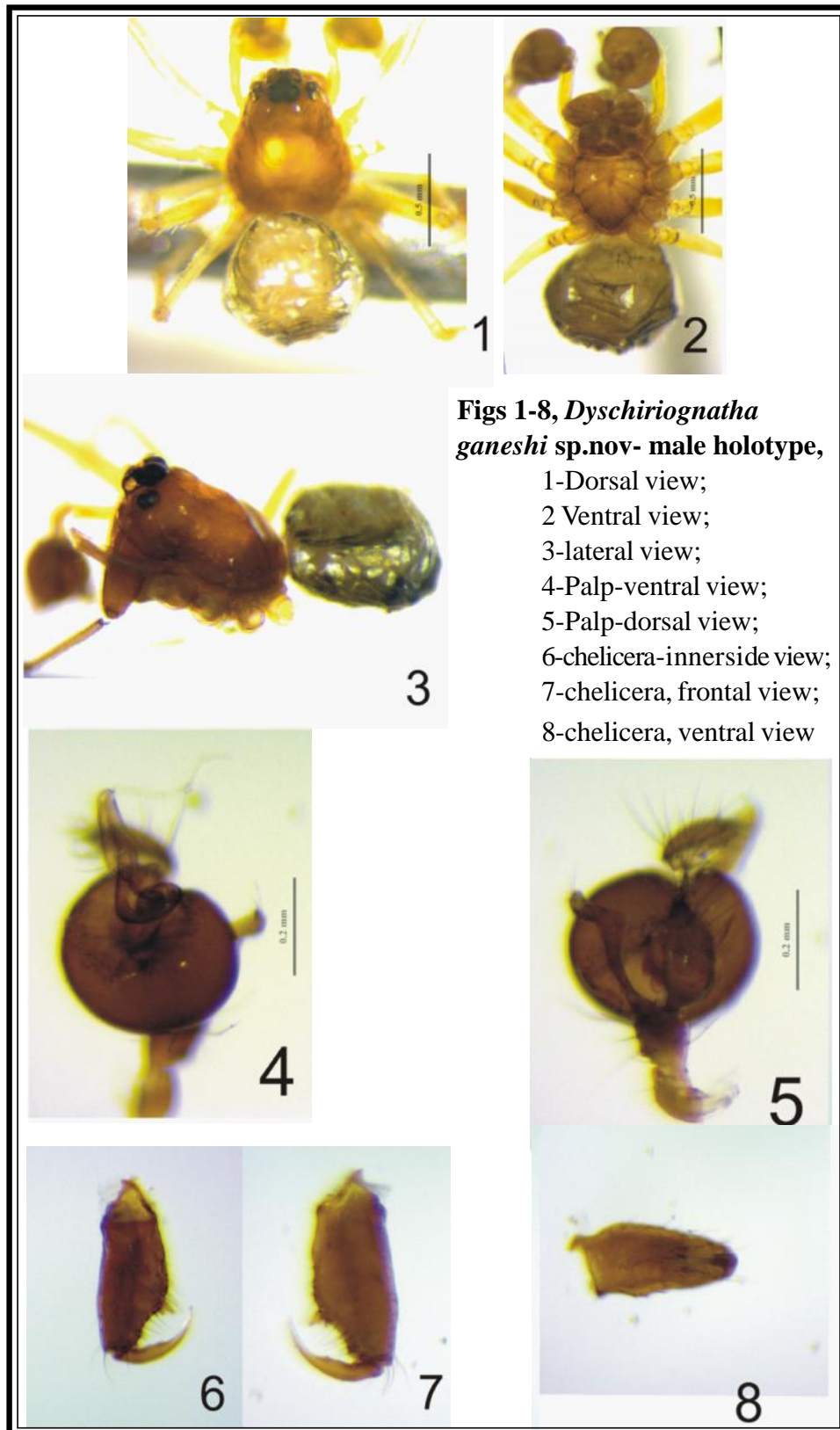
Type locality: India, Maharashtra, District-Buldhana, Lonar Crater Sanctuary

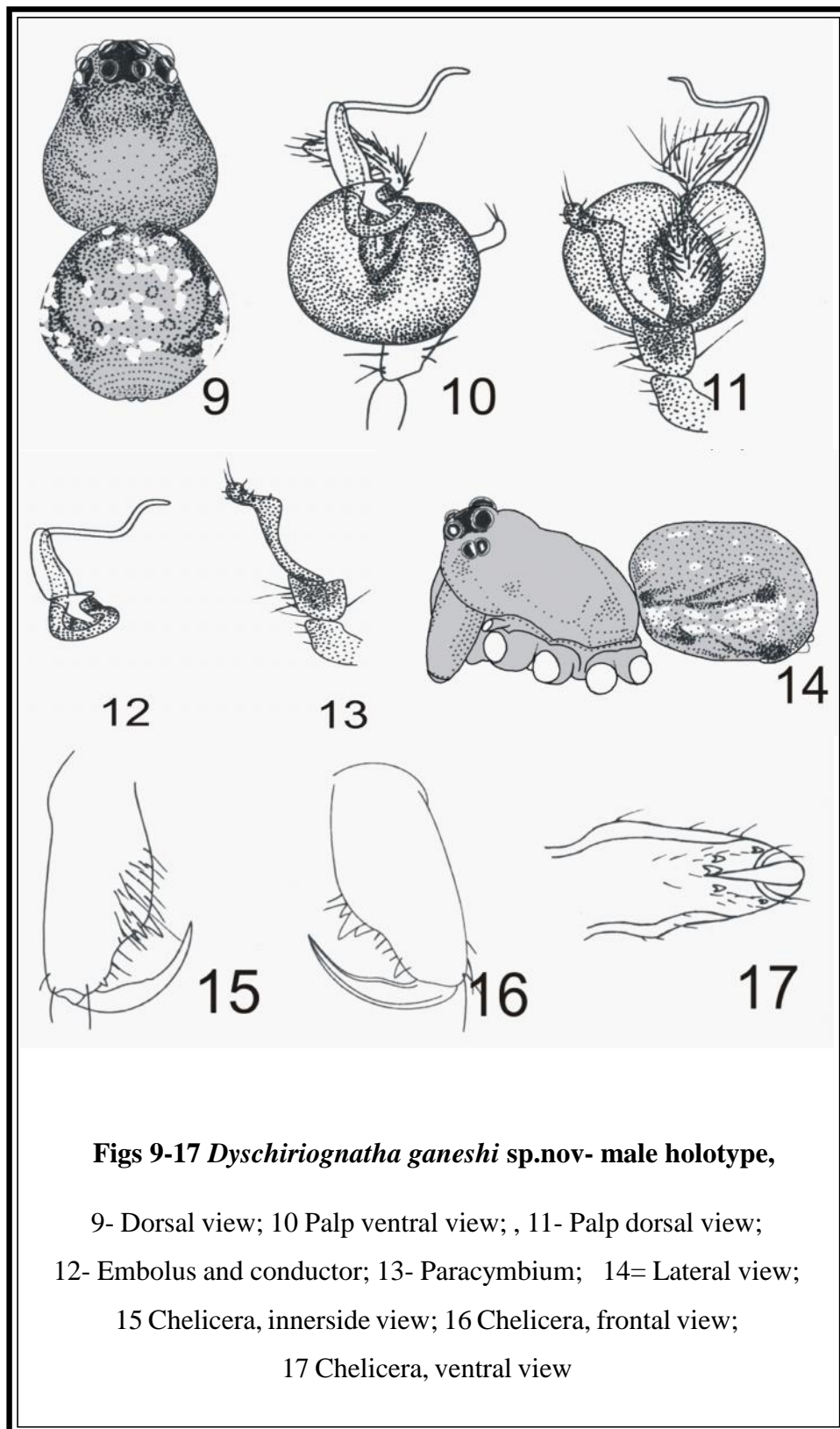
Etymology. The specific name is patronym in honour of Dr. Ganesh Vankhede President of Indian Society of Arachnology and former Professor & Head, Department of Zoology, Sant Gadge Baba Amravati University, Amravati. (M.S) India.

Diagnosis This species can be distinguished from the other *Dyschiriognatha* species by the embolus producing the long and thin chitinised stylus (fig. 12), and the tracheal anatomy, the position of the tracheal spiracle in male is very close to spinnerets.

Distribution: Known only from the type locality.

Description: Holotype. Total length 1.50; Cephalothorax 0.81 long, 0.70 wide; abdomen 0.78 long, 0.81 wide. Clypeus height 0.15. AME 0.07, ALE 0.07, PME 0.08, PLE 0.06, MOA 0.05 long, front width 0.05, back width 0.04. Measurements of Palp and Legs: Palp 1.16 (0.13, 0.38, 0.10, 0.10, 0.45) Leg I 4.0 (0.21, 0.10, 1.07,





0.30,0.94, 0.84, 0.55), II 3.6 (0.20,0.11, 0.94, 0.30,0.83,0.72,0.53), III 2.2 (0.17,0.10,0.56, 0.21,0.40, 0.42, 0.33), IV 2.8 (0.19, 0.10,0.79, 0.21, 0.61,0.56,0.37),

Cephalic region projecting higher than thoracic region, sloping posteriorly at about 65° angle. Clypeus slightly cleft mid-longitudinally, Eight eyes in two rows. Anterior eye row strongly recurved and posterior eye row slightly recurved. Anterior median eyes slightly projected anterior to clypeus. Trapezium of median eyes almost square, slightly wider anteriorly. Labium twice broader than long, base 1.75 times wider than anterior end. Endites longer than wide, and slightly converging apically. Chelicerae rugose, having numerous hairs on cheliceral furrow, with three promarginal and two retromarginal teeth. Fangs with knee like bent.

Legs with several trichobothria on tibiae and femora. Trichobothria absent on metatarsus. Leg formula 1243. Palp : The short embolus and conductor, tegulum large and globular, the embolus produced in to long and thin chitinised stylus.

Abdomen globular. The tracheal anatomy, the position of the tracheal spiracle in male very close to spinnerets.

Carapace yellowish-brown, with one median and two lateral darker bands. Lateral borders punctuate. Trapezium of median eyes black, median eyes ringed with black, lateral slightly so. Chelicerae yellowish-brown, Endites yellowish-brown. Sternum bleached, with somewhat darker margin. Penetrating with a wide strip between coxae II and III. Legs light yellow. Abdomen pale gray, silvery patches with two pairs of reddish brown sigilla, and some transverse band to anal tubercle end, extended laterally towards anterolaterals in line with swollen posteriorly.

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New Species of *Dyschiriognatha*Bodkhe *et al*

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